

Could It Happen Here?

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Aging natural gas pipelines, lax federal oversight could be a deadly combination

By Gary Stern



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In September 2010, a natural gas transmission line that ran beneath the quiet San Francisco suburb of San Bruno, CA, failed catastrophically, touching off a massive natural gas explosion that devastated an entire neighborhood, killing eight and destroying 38 homes – and according to at least one expert familiar with New York City’s natural gas infrastructure, troubling similarities exist between Gotham’s underground pipelines and the one that exploded in northern California.

Moreover, some federal officials believe that the natural gas utilities have not done enough to ensure the safety of the natural gas infrastructure, not only in New York, but across the country.

The problem, said Prof. Anil Agrawal, a professor of Civil Engineering at the City College of New York, is that New York City’s pipelines, like the one in San Bruno, are old, perhaps well beyond their expiration dates.

“These old systems are subject to corrosion and pipelines breaking,” Agrawal said.

Agrawal, who is one of the few academics in New York City who has studied the city’s water and natural gas pipelines, maintains that because of their age, the natural gas lines that comprise New York City’s natural gas infrastructure are increasingly subject to corrosion and, subsequently, failure that could result in significant leakage.

Much of these pipelines are made of cast iron. According to public records, there are nearly 3,000 miles of cast-iron natural gas transmission pipeline beneath New York City. A significant portion of those lines are more than 60 years old; hundreds of miles of it is more than 100 years old.

According to media accounts, the pipeline that exploded in San Bruno was 62 years.

Cast iron is durable and can last for decades, Agrawal said, but eventually the cast iron corrodes and the pipeline begins to disintegrate; if enough of the metal gives way, the pipeline could burst.

The result could be horrific.

Agrawal points to a July 2007 steam blast near Grand Central that killed one person, injured 45 people and destroyed a 40-story apartment building as a sign of what could happen.

A recent story by the Associated Press noted that the National Transportation Safety Board (NTSB), the agency that investigates natural gas pipeline explosions, has repeatedly recommended that natural gas utilities install safety shutoff valves that could help forestall an explosion should a pipeline fail.

But installing the valves is costly and some officials feel that the utility companies have been slow to act, either because of the cost or other, unstated factors. A recent report by the gas-industry supported Gas Research Institute noted that installing safety shutoff valves throughout the entire 300,000-mile natural gas infrastructure would cost at least \$300 million.

Cynthia Quarterman, the head of the federal Pipeline and Hazardous Material Safety Administration, told the AP in Feb. 5 story that her staff is currently reviewing whether or not too much latitude has been given to the natural gas utilities in determining when to install the shutoff valves.

“It’s after an accident that we find there were shortcomings,” Deborah Hersman, head of the NTSB, told the AP. “Unfortunately, we’ve had to learn that lesson too many times.”